

REMARKS

Claims 1-22 are now present in this application.

The Abstract, Specification and claims 1-22 have been amended. Reconsideration of the application, as amended, is respectfully requested.

The foregoing amendments to the claims have not been made in response to any statutory requirement. Rather, these claims have been amended to simply place them in better form.

A Certified copy of the European Priority document is being filed simultaneously herewith. Notification of receipt of this document, is respectfully requested.

The Abstract is objected to for certain informalities. Because these informalities have now been addressed, it is respectfully requested that this objection now be reconsidered and withdrawn.

Claims 1-11, 13, 16 and 22 stand rejected under 35 U.S.C. 102(b) as being unpatentable over Thornton, et al., U.S. Patent 6,048,300. This rejection is respectfully traversed.

Claims 12 and 14-21 stand rejected under 35 U.S.C. 103 as being unpatentable over Thornton '300 in view of U.S. Patent 5,597,829 to Thornton. This rejection is respectfully traversed.

Claim 15 stands rejected under 35 U.S.C. 103 as being unpatentable over Thornton '300 in view of Loffler, U.S. Patent 5,997,462. This rejection is respectfully traversed.

The patent to Thornton '300 is for a compact cartridge for an afterloader. The present invention is also used in an afterloader. This invention relates to a device for sensing the presence of the distal end of a source wire in a reference position which within a guidance channel of the afterloading device. Accordingly, and as stated in claim 1, a lever element is pivotally mounted near said guidance channel, which lever element is in a first position, when

said distal end of said source wire is not present in its reference position and whereas said lever element is in a second position, when said distal end is present in its reference position.

Thornton '300 has nothing to do with sensing the presence (or location) of a distal end of a source wire (and hence an energy emitting source connected to said distal wire end). The Examiner refers to reference numeral 85 in e.g. Figure 4 and 5 of the citation. The feature relates to indeed a lever element which is activated once an afterloading cartridge 20 is inserted within receptable opening 19 present in the housing 16 of the afterloading apparatus. Please observe Figure 2 in combination with Figures 4-5 and column 6, lines 51 and further. Lever 86 forms part of a retract solenoid 84-85, which serves as a fail safe switch in case of a power failure or s drive failure.

During normal operation (Figure 5) solenoid 84 is activated urging lever end 89 away from the gear transmission assembly 74. During normal operation gear transmission assembly 74 is driven by the drive means 66 of the afterloading apparatus, and in turn drives the internal drive means 54 and 56 of the cartridge (see Figure 3). Internal drive means 54 and 56 are considered source wire drive means for advancing and retracting a source wire through guidance channel 92-94 towards source wire opening 22. See Figure 2 and 3. The source wire wound up in several loops within a radiation shielded compartment.

In case of a power or drive failure, retract solenoid 86 will be de-energized and lever end 89 will be urged towards the gear transmission assembly 74 bringing the gear 79 out of mesh with gear 81. This situation is shown in Figure 4. In this situation, the internal drive means of the cartridge are interrupted and an unintentional and hazardous displacement of the energy emitting source through the guidance channel 92-94 towards source wire opening 22 is prohibited.

Therefore, the Examiner's point of view is incorrect. Lever 86 as used in Thornton '300 has nothing to do with sensing the presence of the distal tip of a source wire. In fact, lever 86 is a fail safe element for the overall operation of the afterloading apparatus and is moreover located at a different location within the device. If lever 86 has to be considered a sensing element for

the presence of the distal tip of a source wire, it should have been located near guidance channel 112 and the source wire opening 22 in Figure 2 of Thornton '300. This is not the case.

Thornton '300 fails to disclose a lever element, which is pivotally mounted near said guidance channel, and which lever element is in a first position, when said distal end of said source wire is not present in its reference position and whereas said lever element is in a second position, when said distal end is present in its reference position.

With the features of present claim 1, a mechanical construction of a lever element is suggested, which gives a more accurate and reliable indication about the passage of the energy emitting source passed its reference position within the guidance channel of the afterloading apparatus, as with the prior art devices. Unlike the prior art, the lever element according to the invention is not susceptible for any disturbances, like debris from the guidance channel, which debris may accumulate within the guidance channel due to the advancement and the retraction of the source wire within the afterloading apparatus. The reliability and accuracy of the sensing device is thus ensured as the displacement of the lever element due to the displacing distal end of the source wire activates the detection means being mounted in a separate cavity or place within the afterloading cartridge, which cavity is isolated from the guidance channel.

The secondary reference to Thornton '829 does not overcome the deficiencies of the Thornton '300 reference. This Thornton '829 patent is merely relied upon to show a specific source wire with an energy emitting source provided with a magnetic tracking means in the form of a ferromagnetic ball.

The other secondary reference to Loffler also does not overcome the deficiencies of Thornton '300.

Nowhere in the prior art utilized by the Examiner, is the device for sensing the presence of the distal end of a source wire as is claimed in the present application, either suggested or rendered obvious. Accordingly, reconsideration and withdrawal of the 35 U.S.C. 102(b) and 103 rejections are therefore requested.

Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

Conclusion

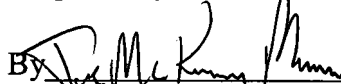
In view of the above remarks, it is believed that claims are allowable.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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